## IN THE CLAIMS

1-18. (Canceled)

19. (Previously Presented) A capacitor, comprising:

a first conductive capacitor plate of a first material;

a second conductive capacitor plate; and

a dielectric interposed between said first and second conductive capacitor plates, wherein said dielectric is an oxide of a metal layer of a second material overlying the first conductive capacitor plate, wherein the metal layer includes a non-oxidized portion and an oxidized portion, wherein the oxidized portion is the dielectric.

20. (Currently Amended) A memory system, comprising:

a monolithic memory device, comprising a capacitor, wherein the capacitor comprises:

a first conductive capacitor plate of a first material;

a second conductive capacitor plate; and

a dielectric interposed between said first and second conductive capacitor plates, wherein said dielectric is an oxide of a metal layer of a second material overlying the first conductive capacitor plate, wherein the metal layer includes a non-oxidized portion and an oxidized portion, wherein the oxidized portion is the dielectric; and

a processor configured to access the monolithic memory device.

21-52. (Canceled)

53. (Currently Amended) A capacitor comprising:

a first capacitor electrode of a first metal material;

a dielectric layer that includes an oxide of a metal layer of a second metal material different from the first metal material, the metal layer overlying the first capacitor electrode, wherein the metal layer includes a non-oxidized portion and an oxidized portion, wherein the oxidized portion is the dielectric layer; and

a second capacitor electrode.

54-78. (Canceled)

79. (Previously Presented) The capacitor of claim 19, wherein the oxidized portion of the metal layer is formed from at least one metal selected from the group consisting of titanium, copper, gold, tungsten, and nickel.

80. (Withdrawn) The capacitor of claim 79, wherein the at least one metal is alloyed with at least one additional metal selected from the group consisting of strontium, barium, and lead.

81. (Previously Presented) The capacitor of claim 19, wherein the second conductive capacitor plate is formed from a material selected from the group consisting of polysilicon and metal.

82. (Previously Presented) The memory system of claim 20, wherein the oxidized portion of the metal layer is formed from at least one metal selected from the group consisting of titanium, copper, gold, tungsten, and nickel.

83. (Withdrawn) The memory system of claim 82, wherein the at least one metal is alloyed with at least one additional metal selected from the group consisting of strontium, barium, and lead.

84. (Previously Presented) The memory system of claim 20, wherein the second conductive capacitor plate is formed from a material selected from the group consisting of polysilicon and metal.

85. (Previously Presented) The capacitor of claim 53, wherein the oxidized portion of the metal layer is formed from at least one metal selected from the group consisting of titanium, copper, gold, tungsten, and nickel.

86. (Withdrawn) The capacitor of claim 85, wherein the at least one metal is alloyed with at least one additional metal selected from the group consisting of strontium, barium, and lead.

87. (Previously Presented) The capacitor of claim 53, wherein the second capacitor electrode is formed from a material selected from the group consisting of polysilicon and metal.

88-97. (Canceled)

98. (Withdrawn) A capacitor formed by a process comprising:

forming an insulative layer overlying a substrate;

masking the insulative layer to define a region in which to fabricate the capacitor;

removing the insulative layer in an unmasked region to expose a portion of the substrate;

depositing a polysilicon layer overlying the insulative layer and the substrate and contacting the substrate;

removing portions of the polysilicon layer to expose an upper surface of the insulative layer;

depositing a metal layer to overly the polysilicon layer, the metal layer being formed from at least one metal selected from the group consisting of titanium, copper, gold, tungsten, and nickel alloyed with at least one additional metal selected from the group consisting of strontium, barium, and lead;

contacting the metal layer with an electrolytic solution;

applying an electrical potential to the electrolytic solution and the metal layer;

oxidizing at least a portion of the metal layer to form a metal oxide to function as a dielectric layer; and

forming an electrically conductive layer overlying the metal oxide.

99. (Withdrawn) The capacitor of claim 98, wherein the electrolytic solution is a basic solution.

100. (Withdrawn) The capacitor of claim 98, wherein the electrolytic solution is an acidic solution.

101. (Withdrawn) The capacitor of claim 98, wherein the electrolytic solution is a solution of one part $NH_4OH$ to ten parts water.

102. (Withdrawn) The capacitor of claim 98, wherein the electrolytic solution is a 0.1 molar solution of $HClO_4$.

103. (Previously Canceled)

104. (Withdrawn) A capacitor, comprising:

a first conductive plate serving as a first electrode of the capacitor;

a second conductive plate serving as a second electrode of the capacitor, the second conductive plate formed from a material selected from the group consisting of polysilicon and metal; and

a dielectric interposed between the first and second conductive plates, wherein the dielectric is an oxide of a metal layer overlying the first conductive plate, the metal layer formed from at least one metal selected from the group consisting of titanium, copper, gold, tungsten, and nickel, alloyed with at least one additional metal selected from the group consisting of strontium, barium, and lead.

105. (Withdrawn) A memory system, comprising:

a monolithic memory device comprising a capacitor, wherein the capacitor comprises

a first conductive capacitor plate,

a second conductive capacitor plate formed from a material selected from the group consisting of polysilicon and metal, and

a dielectric interposed between the first and second conductive plates, wherein the dielectric is an oxide of a metal layer overlying the first conductive plate, the metal layer formed from at least one metal selected from the group consisting of titanium, copper, gold, tungsten,

and nickel, alloyed with at least one additional metal selected from the group consisting of strontium, barium, and lead; and

a processor configured to access the monolithic memory device.

106. (Withdrawn) A capacitor comprising:

a first capacitor electrode comprising polysilicon;

a dielectric layer formed by oxidizing a metal layer overlying the first capacitor electrode, the metal layer formed from at least one metal selected from the group consisting of titanium, copper, gold, tungsten, and nickel, alloyed with at least one additional metal selected from the group consisting of strontium, barium, and lead; and

a second capacitor electrode formed from a material selected from the group consisting of polysilicon and metal.

107. (Previously Presented) The capacitor of claim 19, wherein the oxidized portion of the metal layer comprises titanium.

108. (Currently Amended) The capacitor of claim 19, further comprising at least one of a diffusion barrier layer and an oxidation resistant layer interposed between the first conductive capacitor plate and the oxidized portion of the metal layer.

109. (Previously Presented) The memory system of claim 20, wherein the oxidized portion of the metal layer comprises titanium.

110. (Currently Amended) The memory system of claim 20, further comprising at least one of a diffusion barrier layer and an oxidation resistant layer interposed between the first conductive capacitor plate and the oxidized portion of the metal layer.

111. (Previously Presented) The capacitor of claim 53, wherein the oxidized portion of the metal layer comprises titanium.

112. (Previously Presented) The capacitor of claim 53, further comprising at least one of a diffusion barrier layer and an oxidation resistant layer interposed between the first capacitor electrode and the oxidized portion of the metal layer.

113. (Withdrawn) The capacitor of claim 104, wherein the first conductive plate comprises polysilicon having a thickness of 200 to 400 Angstroms.

114. (Withdrawn) The capacitor of claim 104, further comprising at least one of a diffusion barrier layer and an oxidation resistant layer interposed between the first conductive plate and the metal layer.

115. (Withdrawn) The memory system of claim 105, wherein the first conductive capacitor plate comprises polysilicon.

116. (Withdrawn) The memory system of claim 105, further comprising at least one of a diffusion barrier layer and an oxidation resistant layer interposed between the first conductive plate and the metal layer.

117. (Withdrawn) The capacitor of claim 106, wherein the first capacitor electrode has a thickness from 200 to 400 Angstroms.

118. (Withdrawn) The capacitor of claim 106, further comprising at least one of a diffusion barrier layer and an oxidation resistant layer interposed between the first capacitor electrode and the metal layer.

119. (Withdrawn) A capacitor structure formed on a substrate, comprising:

a first conductive capacitor plate formed atop the substrate;

a first metal layer formed atop the first conductive capacitor plate;

a first metal oxide layer formed from the metal layer such that the remaining first metal layer forms part of the first conductive capacitor plate; and

a second conductive layer formed atop the first metal oxide layer.

120. (Withdrawn) The capacitor structure of claim 119, further including:

a second metal layer formed atop the second conductive layer;

a second metal oxide layer formed from the second metal layer such that the remaining second metal layer forms part of the second conductive layer;

a third conductive layer formed atop the second metal oxide layer, wherein the first and second metal oxide layers and the second conductive layer form the dielectric of the capacitor and the third conductive layer serves as a second conductive capacitor plate.

121. (Withdrawn) The capacitor structure of claim 119, wherein:

the first conductive capacitor plate comprises polysilicon and the first metal layer comprises a metal selected from the group of metals consisting of titanium, tungsten, copper, gold, and nickel.

122. (Withdrawn) The capacitor of claim 119, wherein the first metal layer is substantially completely oxidized to form the metal oxide layer.

123. (Withdrawn) The capacitor of claim 119, wherein the first metal oxide layer has a thickness of between 10 and 1000 Angstroms.

124. (Withdrawn) The capacitor of claim 119, wherein the first metal layer is alloyed with another material.